REMARKS

This is a response to the non-final Office Action mailed August 19, 2009. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

Telephone Conversation With Examiner

Examiner Nunez is thanked for the telephone conversation conducted on September 24, 2009. Proposed amendments were discussed. Asserted art was discussed. It appears that the proposed amendments overcome the rejections based on the asserted art.

Present Status of Patent Application

Claims 8, 12-15, 17, 18, and 21-33 are pending in the present application. Specifically, claims 1-7, 9-11, 16, 19 and 20 have been canceled without prejudice, waiver, or disclaimer; claims 8, 12, 13, 17, 18, 21-24, 26 and 30 have been currently amended without introduction of new matter; claims 14, 15, 25, and 27-29 are previously presented claims; and claims 31-33 are new claims that are being submitted without introduction of new material. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

Claim Objection

Statement of the Objection

Claim 26 is objected to because of the following informalities: the quotes in the limitations "change to a binary display" operation, or d) a "change to a decimal display" should be deleted. Appropriate correction is required.

Response to the Objection

Applicants respectfully traverse the objection and point out that the two operations referred to above, are two alternative elements of a menu for carrying out editing operations. Nonetheless, Applicants have opted to eliminate these two elements by appropriately amending claim 26, and respectfully request withdrawal of the objection.

Claim Rejections under 35 U.S.C. §102

Statement of the Rejection

Claims 8, 10, 13-15, 18, 21-24, 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Thames et al. (US20030163801, hereinafter Thames).

Response to the Rejection

Independent claim 8

Applicants respectfully traverse the rejection of independent claim 8. Nonetheless, Applicants have opted to currently amend claim 8 in the interests of moving forward prosecution in the case. The amendment is intended to clarify that the claim is directed at using data tips rather than multiple windows. One of ordinary skill in the art will readily recognize that <u>a data tip</u>, which is typically activated by placing a cursor (hovering) upon an object in a display screen, is different from a <u>window</u> which is typically activated by clicking on an activation button for launching the window.

Applicants have provided certain details in this matter in their original specification. For example, attention is drawn to their paragraph [0006] which is reproduced below for easy reference:

> *[0005]   Microsoft@ Visual C++ 4.0, available from Microsoft Corporation, One Microsoft Way, Redmond, Washington 98052, utilizes a feature called data tips to provide easy access to variable values. The data tips feature was inspired by the tool tips popularized by other Microsoft@ products such as Microsoft Office^{TM}. Data tips are a convenient feature that allows a developer to see the value of a variable, data structure, and expression in source code simply by moving a mouse cursor or other user pointing device over the variable in the source code. <u>This can avoid the cumbersome activity of switching between windows or display screens to view data already in the application.</u>* (Emphasis added).

In this context, Applicants acknowledge that the cited art of James does indeed teach a tooltip. For instance, in his paragraph [0655], James discloses a tooltip display 3801 as follows: *"For example, in FIG. 38, placing mouse cursor 1601 over left brace 3802 on line 8 following the if statement results in the footnote tooltip display 3801,…"*

James also teaches a popup window. For instance, in his paragraph [0670], James

discloses a popup window 4140 as follows: "*When a user places cursor 1601 on link [FULL*

EXPANSION]4133 and <u>*generates a click event*</u>, *a popup window 4140 is generated. Popup*

window 4140 contains the full inline expansion of the macro call of line 19…" (Emphasis

added). As shown in his FIG. 41D and described accordingly in his paragraph [0669], *[FULL*

EXPANSION]4133 is a link that is <u>activated by a click event</u> for producing a popup window, in

contrast to his "*tooltip display 3801*" that is activated by "*placing mouse cursor 1601 over left*

brace 3802."

     However, the Office action appears to have overlooked this distinction between a tooltip

and a popup window when asserting on page 3 that James discloses the following: "*the*

expansion widget indicator operable to launch **a child data tip** *window for displaying the*

related data sub-items together with associated data values for each individual data sub-item

<u>*(fig. 41D, el.* **4140***; page 43, paragraphs [0669], [0670])*</u>*,,*" (Emphasis added).

     As explained above, James' element 4140 is a <u>popup window</u> and Applicants respectfully

submit that it is improper to characterize this popup window 4140 as a <u>tooltip</u> that is generated as

a result of placing a cursor upon an object.

     Notwithstanding the remarks above, Applicants have opted to currently amend claim 8 in

order to clarify certain details of the claim and to move forward prosecution in the case. The

amendment has been carried out keeping in mind the teachings in Applicants' specification. For

example, paragraph [0023] teaches the following:

> *[0023]*   *The invention relates to enhanced data tips, which are an extension of the*
> *currently known data tips functionality in programs such as debuggers.* <u>*In many cases, a*</u>
> <u>*single line of information as is currently displayed by the present data tips*</u>
> <u>*implementation is not enough*</u>*. The present invention addresses this issue by*
> *incorporating* <u>*an innovative auto-expand mechanism*</u> *that allows the user to expand any*
> *expandable item and view the resulting information. The invention has several*
> *advantages in that it includes the ability to expand the information to view 'child' or sub-*
> *item data, which would also include further expandability if deeper information is*
> *associated with the sub-item data. This results in instant availability of* <u>*a full expansion*</u>
> <u>*tree of data tips to the developer*</u>*.*
> (Emphasis added)

     Applicants' paragraph [0026] further points out: "*In particular, the invention is an*

alternative representation of a tree view <u>*occupying less screen real estate*</u>." (Emphasis added). It

can be recognized that James' popup window 4140 fails to satisfy this objective.

In line with Applicants' teachings reproduced above, amended claim 8 is directed at "*an expansion tree of data tips incorporating an auto-expansion feature*," and clarifies that a parent data tip is **automatically** generated as a result of "*a cursor initially hovering over the object on the computer screen.*"

The amended claim also clarifies that a first child data tip is generated as a result of: "*determining that the cursor is next hovering over the first expansion widget indicator* (located inside the parent data tip.)" Applicants' child data tip generation is in contrast to the cited popup window 4140 of James' that is based on a click event.

In other words, the claim is directed at an expansion tree of interactive data tips, specifically two data tips (i.e., parent data tip → child data tip) each of which is generated as a result of hovering over elements (not clicking, as is done for generating popup windows).

The amended claim further cites "*automatically dismissing the first child data tip upon determining that the cursor has been moved out of the first child data tip and is hovering inside the parent data tip.*" Clearly, such a feature is not present in James' popup window 4140 that is cited in the Office action.

Consequently, in view of the remarks above, Applicants respectfully submit that amended claim 8 is allowable over the cited reference and hereby request withdrawal of the rejection under 35 U.S.C. 102, followed by allowance of the claim.

Claim 10

Applicants have opted to cancel 10 and respectfully submit that the rejection of this claim has been rendered moot as a result of the cancellation.

Independent claim 13

Certain remarks made above with reference to the rejection of claim 8 are equally pertinent to the rejection of claim 13 as well. However, in the interests of brevity, Applicants draw attention to these remarks above and refrain from repeating them herein.

Furthermore, Applicants have opted to currently amend claim 13 in order to clarify certain details of the claim and to move forward prosecution in the case.

As amended, the claim is directed at an expansion tree of data tips, and includes a first child data tip containing <u>two</u> "expansion widget indicators". In other words, the claim now cites a parent data tip → first child data tip → second child data tip, each of which is generated as a result of hovering over elements, more so in the case of the second child element that is launched as a result of hovering over <u>either one of two elements</u> (two expansion widget indicators).

Various aspects related to the features of amended claim 13 are taught in Applicants' original specification. For example, it may be pertinent to draw attention to Applicants' FIG. 5, which shows a first child data tip (430) containing two expansion widget indicators ("+" signs corresponding to "bigarray" and "nested," for example).

A portion of Applicants' paragraph [0043] is reproduced below that teaches the hovering aspect over expansion widget indicators.

> *Here, the user is assumed to have hovered the mouse over the "+" widget in the data tip 310 shown in Figure 3. After a short timeout of roughly less than a second, or immediately when the user clicks the "+" widget, the list of sub-items in a new data tip may be displayed. This data tip 430 shows the list of data members of the original expression and their values. Notice that data tip 310 has been modified because a "-" widget 420 is displayed in the left hand corner of data tip 3 10. This indicates to the user that there is no further expansion of the variable "c" because it is shown in the new data tip window 430.*

In view of the remarks above, it may be further pertinent to point out that Applicants' amended claim 13 now includes: "*a child data tip as an expansion data tip to the parent data tip, the <u>child data tip window having a second expansion widget indicator</u> associated with a first data sub-item contained inside the first child data tip; <u>a third expansion widget indicator</u> associated with a second data sub-item contained inside the first child data tip; and wherein upon determining that the cursor is hovering over one of the second or the third expansion widget indicators, <u>a second child data tip</u> is <u>automatically</u> launched as a part of the expansion tree of data tips.*"

Applicants respectfully submit that the cited reference of James fails to disclose this, and other, features of amended claim 13. Consequently, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. 102, followed by allowance of claim 13.

Claims 14 and 15

Applicants respectfully submit that claims 14 and 15 are allowable for several reasons. One amongst these several reasons arises from the fact that each of these claims is directly dependent on allowable claim 13, which is allowable for reasons provided above, and are therefore allowable by law due to claim dependency. Consequently, Applicants respectfully request withdrawal of the rejection followed by allowance of these claims.

Independent claim 18

Certain remarks made above with reference to the rejection of claims 8 and 13 are equally pertinent to the rejection of claim 18 as well. However, in the interests of brevity, Applicants draw attention to these remarks above and refrain from repeating them herein.

Furthermore, Applicants have opted to currently amend claim 18 in order to clarify certain details of the claim and to move forward prosecution in the case. As amended, the claim is directed at an expansion tree of data tips, specifically two data tips (i.e., parent data tip → child data tip) <u>each of which is generated as a result of hovering over elements</u> (not clicking, as is done for generating James' popup window 4140 that is cited in the Office action).

Applicants respectfully submit that the cited reference of James fails to disclose this, and other features of amended claim 18. Consequently, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. 102, followed by allowance of claim 18.

Independent claim 21

Certain remarks made above with reference to the rejection of claims 8, 13 and 18 are equally pertinent to the rejection of claim 18 as well. However, in the interests of brevity, Applicants draw attention to these remarks above and refrain from repeating them herein.

Furthermore, Applicants have opted to currently amend claim 21 in order to clarify certain details of the claim and to move forward prosecution in the case. As amended, the claim is directed at an expansion tree of data tips, specifically two data tips (i.e., parent data tip → child data tip) <u>each of which is generated as a result of hovering over elements</u> (not clicking, as is done for generating James' popup window 4140 that is cited in the Office action).

The amended claim further includes: "*automatically displaying thereon, <u>a child data tip</u>*

with at least a portion of the child data tip overlapping the parent data tip, *in an expansion tree of*
interactive data tips that occupies less visible area on the computer display than an equivalent
number of watch windows." In this context, attention is drawn to Applicants' various figures,
such as FIGs. 4 and 7 that show these overlapping tool tips.

    Furthermore, as pointed out in Applicants' specification, for example in paragraph
[0026], "*the invention is an alternate representation of a tree view* occupying less screen real
estate" by using "*an innovative auto-expand mechanism that allows the user to expand any*
expandable item and view the resulting information" (paragraph [0023]) using enhanced
interactive data tips that overlap each other.

    In short, Applicants respectfully submit that the cited reference of James fails to various
aspects of amended claim 21 and therefore request withdrawal of the rejection under 35 U.S.C.
102, followed by allowance of claim 21.

Claims 22-24 and 29

    Applicants respectfully submit that claims 22-24 and 29 are allowable for several
reasons. One amongst these several reasons arises from the fact that these claims are directly or
indirectly dependent on allowable claim 21. Consequently, Applicants respectfully request
withdrawal of the rejection followed by allowance of these dependent claims.

    Furthermore, attention is drawn to page 7 of the Office action wherein it is alleged that
Applicants' "*editing menu*" (shown for example, in Applicants' Fig. 8 as element 810, and
generated as a result of "*detecting the positioning of the pointer upon a first individual element*
inside the child data tip window") is anticipated by James' "*entry-edit form*."

    Applicants respectfully traverse this allegation and draw attention to James' paragraph
[0092], which teaches: "*In one embodiment, the web annotator permits direct editing of*
webpages via a right-button mouse-click, *or a mouse-click while simultaneously pressing a*
specific keyboard key. This event brings up an annotator popup entry-edit form *enabling the*
browser user to add or edit annotation text pertaining to the symbol or area of the display
selected by the browser user." (Emphasis added).

    One of ordinary skill in the art can readily recognize that James' popup entry edit form

(shown in his Fig. 46; element 4601) does not reasonably anticipate Applicants' data tip that is different in format, and is generated as a result of positioning a pointer over *a first individual element inside the child data tip window.*

Claim Rejections under 35 U.S.C. §103

I.   Statement of the Rejection

Claims 11, 12, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thames et al. in view of Microsoft Tiptoe Through (applicant provided NPL document, Microsoft, Tiptoe Through the ToolTips With our All-Encompassing ToolTip Programmer's Guide).

Response to the Rejection

Claims 11, 12, and 17

Applicants respectfully traverse the rejection and submit that claims 11, 12, and 17 are allowable for several reasons. One amongst these several reasons arises from the fact that these claims are directly dependent on allowable claims (8 and 13). Consequently, Applicants respectfully request withdrawal of the rejection followed by allowance of these dependent claims.

II.   Statement of the Rejection

Claims 25-28, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thames in view of Gomes et al. (US20050028107, hereinafter Gomes).

Response to the Rejection

Claims 25-28 and 30

Applicants respectfully traverse the rejection and submit that claims 25-28 and 30 are allowable for several reasons. One amongst these several reasons arises from the fact that these claims are directly or indirectly dependent on allowable claim 21. Consequently, Applicants

respectfully request withdrawal of the rejection followed by allowance of these dependent claims.

Remarks pertaining to new claims 31-33

Applicants respectfully submit that new claims 31-33 are allowable over the cited references. The subject matter of these claims is taught in various portions of Applicants' specification. Applicants point out certain segments of Applicants' specification merely for purposes of understanding some of these new claims. However, it must be understood that this identification is being carried out solely to assist prosecution and that the claims are in no way limited to the cited information.

As pointed out above, a portion of Applicants' paragraph [0043] teaches the hovering aspect over expansion widget indicators. This portion of paragraph [0043] is reproduced below for easy reference:

> *Here, the user is assumed to have hovered the mouse over the "+" widget in the data tip 310 shown in Figure 3. After a short timeout of roughly less than a second, or immediately when the user clicks the "+" widget, the list of sub-items in a new data tip may be displayed. This data tip 430 shows the list of data members of the original expression and their values. Notice that data tip 310 has been modified because a "-" widget 420 is displayed in the left hand corner of data tip 3 10. This indicates to the user that there is no further expansion of the variable "c" because it is shown in the new data tip window 430.*

Cited Art Made of Record

The cited art made of record has been considered, but is not believed to affect the patentability of the presently pending claims.

CONCLUSION

Applicants respectfully submit that all pending claims are allowable. Favorable reconsideration and allowance of the present application and all pending claims are hereby requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned representative.

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